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(54) **SMART-GRID COMBINATION POWER SYSTEM**

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(57) **ABSTRACT**

The embodiments shown and described herein relate to a portable clean power generation and aggregation system. The system comprises a plurality of power generation units operable to generate DC electrical power, a power storage device, an inverter unit, and a main controller. The plurality of power generation units may include a solar power generation unit, a wind power generation unit, a hydro power generation unit, and a fuel-based power generation unit. The main controller is electrically coupled to the plurality of power generation units, the inverter controller, and the power storage device, and monitors DC electrical power generation by the plurality of power generation units, monitors DC electrical power received by the inverter, measures charge of the power storage device, and directs DC electrical power from the power storage device to the inverter. The nature of the system and its applications allows the effective use of wireless communications systems and the like where they would otherwise not be possible.

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